



MSD

December 19, 1997

Ms. Liza I. Montalvo
Remedial Project Manager
Kentucky/Tennessee Section
U. S. EPA, Region IV
61 Forsyth Street
Atlanta, GA 30303

Re: Results of Air Quality Monitoring - FY98 First Quarter (FY98-1Q), (Event No. 20) Lees' Lane Superfund Site, Jefferson County, Kentucky Administrative Order on Consent, U. S. EPA Docket No. 91-32-C

Dear Ms. Montalvo:

In accordance with paragraph 1.1, under, Reporting Requirement, of the subject Consent Order and Attachment I, Operation and Maintenance Plan for Post-Removal Site Control at the Lees' Lane Landfill Site, Section 4.2, Air Quality Monitoring, attached for your information and files is one photocopy each of the following items, prepared by Radian Corporation, P. O. Box 13000, Research Triangle Park, North Carolina 27709, and received by MSD on December 16, 1997.

1. Radian Corporation letter, dated December 15, 1997, 2 pages.
2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1 page.
3. Table 1, TO-14 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: 9/24/97, 1 page.
4. Table 2, On-Site Meteorological Data, 9/24/97, 1 page.
5. Table 3, TO-14 Data Summary for Gas Monitoring Well Samples at the Lees' Lane Landfill, Louisville, KY, Sampling Date: 9/24/97, 1 page.



Ms. Lisa Montalvo
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Please advise if you have any questions concerning the attached information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carl A. Neumayer", with a horizontal line extending from the end of the signature.

Carl A. Neumayer
Director of Operations

CAN/dc
Lee'sair1Q98

cc: Mr. Jeff Pratt, KNREPC,
Division of Waste Management
Mr. Rick Hogan, KNREPC
Division of Waste Management
G. R. Garner, Executive Director
File: WD-2 (Lees' Lane M & M Quarterly)

219116.2101

December 15, 1997

RADIAN
INTERNATIONAL LLC

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Research Triangle Park, NC 27709

(919) 461-1100

FAX (919) 461-1415

Mr. Dan Sammons
Chief Chemist
Louisville Metropolitan Sewer District
4522 Algonquin Parkway
Louisville, KY 40211

Dear Dan:

Enclosed is the summary analytical report for the ambient and gas monitoring well samples collected at the Lee's Lane Landfill site on 24 September 1997 (Quarter 20).

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary for the ambient sample with the primary analytes required for submission to EPA. Methylene chloride values from several of the ambient canister samples are elevated over previous reported data. Quality control data from the field blank are not available (as described below) to substantiate reported methylene chloride values. No elevated levels from the gas monitoring wells were reported during the quarter.

The monitoring sites for the collection were chosen based on a combination of prevailing on-site meteorology and available sites in the adjacent residential neighborhood per the standard sampling protocol. The meteorological conditions were warm with East to Northeast winds for most of the monitoring day. Meteorological data readings on-site were invalid due to equipment malfunction, therefore the information displayed in Table 2 was obtained from the Louisville airport's National Weather Station. The ambient samples were collected 3-5 feet above ground level. The ambient samples collected were integrated over a 7-8 hour collection period in Summa[®] canisters.

The methane analysis was performed by GC/FID on a separate analytical system prior to the TO-14 analysis at Radian's Austin Laboratory. The TO-14 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total nonmethane hydrocarbons prior to field deployment. Ten of the thirteen field samples were successfully analyzed for methane and the TO-14 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal Radian required specifications.

The laboratory has issued a Quality Control Exception Report (QCER# V971010-01 and -02, and # V971003-03 for 3 field samples collected this reporting quarter. These exception reports pertain to three (3) canister samples from Well G-1, G-2 and the field blank (FB). Radian has voided these three samples due to canister leaks during the field sample shipment. Subsequent

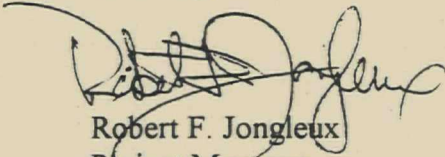
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analysis of well sample G-2 confirms the likely presence of a diesel fuel pattern that would be consistent with a canister leak during transport. The existence of several canister leaks and corresponding sample data loss during this quarter has resulted in a review of blanking and leak detection procedures for the next sampling period. All field sample canisters will be 100 % positive and negative pressure leaked checked prior to field deployment. This corrective action should resolve the field sample loss encountered and improve the completeness criteria back to within program specifications (>90%).

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. The gas monitoring wells were screened with portable survey type instruments prior to field sample collection. The reported methane values this quarter are much improved over the elevated values reported during the previous two quarters this year.

Radian appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,



Robert F. Jongleux
Project Manager

RFJ/Task 21

Enclosure

c: M. McCoy, Radian/RTP
Project File/Task 21

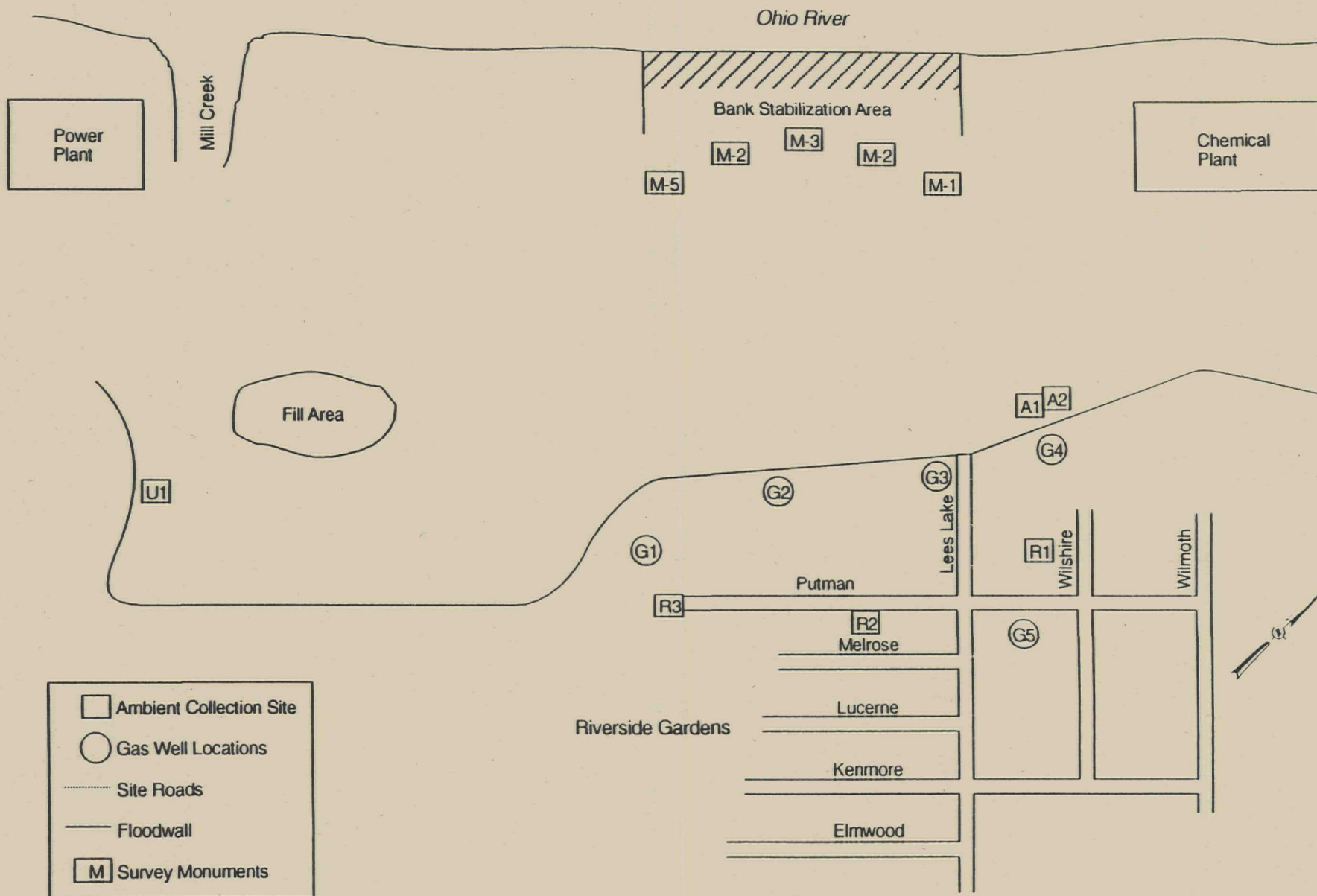


Figure 1. Lees Lane Landfill Sampling Locations

TABLE 1

**TO-14 DATA SUMMARY FOR AMBIENT
AIR SAMPLES AT THE LEE'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 24 September 1997

| Sample ID | Ambient Air Samples | | | | | |
|--------------------|---------------------|---------|---------------|-------------|-------------|-------------|
| | U1 | A1 | A2 | R1 | R2 | R3 |
| Canister ID | A193109 | A193100 | A193105 | A193107 | A193110 | A193221 |
| Dilution Factor | 0.2355 | 0.2698 | 0.3026 | 0.2893 | 0.3045 | 0.3952 |
| Location | Upwind | On-site | On-site (dup) | Residential | Residential | Residential |
| Veriflow ID | A168513 | A134091 | A134133 | A134135 | A133240 | A134131 |
| Compound (ppbV) | | | | | | |
| Benzene | 0.80 | 0.60 | 0.66 | 0.41 | 0.35 | 0.30 |
| Methylene chloride | 15.20 | 11.80 | 22.30 | 34.90 | 3.90 | 0.48 |
| Toluene | 3.00 | 6.01 | 8.36 | 3.19 | 2.36 | 2.63 |
| Vinyl chloride | ND | ND | 0.02 | 0.06 | 0.05 | 0.21 |
| Xylene (Total) | 1.26 | 1.56 | 2.24 | 0.70 | 1.11 | 0.49 |
| Methane (ppmV) | 4.17 | 3.59 | 3.32 | 3.29 | 3.54 | 3.51 |

TABLE 2**LOCAL METEOROLOGICAL DATA****SAMPLING DATE: 24 September 1997**

| Time | Barometric Pressure (in Hg) | Temperature (F) | Dewpoint (F) | Wind Direction (from) | Wind Speed (knots) | Observation |
|------|-----------------------------------|--------------------|-----------------|-----------------------------|--------------------------|--------------|
| 0800 | 30.08 | 58 | 53 | East | 10 | Cloudy |
| 0900 | 30.10 | 58 | 54 | Northeast | 7 | Cloudy |
| 1000 | 30.09 | 60 | 54 | East | 9 | Partly Sunny |
| 1100 | 30.08 | 61 | 54 | East | 13 | Partly Sunny |
| 1200 | 30.06 | 64 | 54 | East | 14 | Partly Sunny |
| 1300 | 30.04 | 65 | 54 | East | 12 | Partly Sunny |
| 1400 | 30.01 | 68 | 54 | East | 13 | Partly Sunny |
| 1500 | 29.99 | 67 | 55 | East | 9 | Cloudy |
| 1600 | 29.96 | 68 | 56 | Northeast | 10 | Cloudy |
| 1700 | 29.94 | 68 | 56 | East | 8 | Partly Sunny |

Source: National Weather Service, Louisville, Ky.

TABLE 3

**TO-14 DATA SUMMARY FOR GAS MONITORING
WELL SAMPLES AT THE LEE'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 24 September 1997

| Sample ID | Well Samples | | | | | | BLANK |
|--------------------|--------------|---------|---------|---------|---------|---------|---------|
| | G1 | G2 | G3 | G4 | G5-L | G5-R | |
| Canister ID | A130700 | A132058 | A193106 | A193099 | A193108 | A193104 | A141759 |
| Dilution Factor | N/A | N/A | 0.3938 | 0.3823 | 0.3886 | 0.3908 | N/A |
| Orifice | D-104 | D-3 | B-1 | D-8 | D-9 | D-33 | N/A |
| Compound (ppbV) | | | | | | | |
| Benzene | Void | Void | 0.62 | 0.37 | 0.13 | 0.10 | Void |
| Methylene chloride | Void | Void | 0.41 | 0.48 | 1.30 | 0.85 | Void |
| Toluene | Void | Void | 4.91 | 8.11 | 2.07 | 1.13 | Void |
| Vinyl chloride | Void | Void | 0.22 | 0.25 | 0.17 | ND | Void |
| Xylene (Total) | Void | Void | 1.45 | 0.83 | 0.73 | 0.58 | Void |
| Methane (ppmV) | Void | Void | 2.67 | 3.26 | 1.74 | 1.11 | Void |